

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,430	12/27/2005	Nestor Rekalde Arrieta	GKNG 1267 PCT	3873
27256	7590 08/08/2007		EXAM	IINER .
Dickinson Wright PLLC 38525 Woodward Avenue			BINDA, GREGORY JOHN	
Suite 2000 Bloomfield Hi	lle MI 48304		ART UNIT	PAPER NUMBER
Diodinicia IIIIs, III 4050 I			3679	
			MAIL DATE	DELIVERY MODE
			08/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)			
	10/562,430	ARRIETA ET AL.			
Office Action Summary	Examiner	Art Unit			
· · · · · · · · · · · · · · · · · · ·	Greg Binda	3679			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period was reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATIO 36(a). In no event, however, may a reply be ti will apply and will expire SIX (6) MONTHS fron cause the application to become ABANDON	N. mely filed  n the mailing date of this communication. ED (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 11 April 2006.					
2a) This action is <b>FINAL</b> . 2b) ⊠ This	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.				
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is				
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
4) Claim(s) 1 and 13-31 is/are pending in the app 4a) Of the above claim(s) is/are withdray 5) Claim(s) is/are allowed. 6) Claim(s) 1 and 13-31 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/o	wn from consideration.				
Application Papers					
9) The specification is objected to by the Examiner.					
10) The drawing(s) filed on $\underline{various}$ is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).					
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority under 35 U.S.C. § 119		•			
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ■ All b) ■ Some * c) ■ None of:  1 ■ Certified copies of the priority documents have been received.  2 ■ Certified copies of the priority documents have been received in Application No. ■  3 ■ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.					
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) ☐ Interview Summa Paper No(s)/Mail				
Notice of Dianaperson's Patent Diawing Neview (+10-940)     Information Disclosure Statement(s) (PTO/SB/08)     Paper No(s)/Mail Date 12/27/05.	Patent Application				

Art Unit: 3679

#### Drawings

- 1. The drawings are objected to because:
  - a. Reference number 15 appears in the drawings but does not appear in the description. This objection would be overcome if at page 4, line 11, the number 15 were inserted after "balls".
  - b. Reference numbers 11, 25 are used to identify features in Figs. 2 & 4 and then reused to identify modifications of those features in Figs. 3 & 5. Such usage is proscribed. See MPEP § 608.02(e).
  - c. Reference number 30 is used to identify a feature in Figs. 2 & 3 and then reused to identify a modification of that feature in Figs. 4 & 5.
  - d. The drawings fail to show the low friction materials recited in claims 1, 13-17 & 23-31. At least three new drawings of appropriate scale with the proper cross hatch patterns are needed to show: an annular disc comprising an anti friction coating; an annular disc comprising a non-ferrous material; and an annular disc comprising plastic
- 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

**Art** Unit: 3679

drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

# Specification

- 3. The substitute specification filed April 11, 2006 has not been entered because it does not conform to 37 CFR 1.125(b) because the statement as to lack of new matter is missing.
- 4. The disclosure is objected to as failing to comply with 37 CFR 1.77(c) for failing to include section headings.
- 5. The detailed description of the invention is objected to as failing to describe the claimed invention, specifically the low friction material recited in claims 1 and 17 and all the limitations of claims 14-16 & 23-31.

#### Claim Objections

6. Claims 15 & 26-28 are objected to because the limitation "bronze or non-ferrous metal" implies bronze is something other than a non-ferrous metal. Appropriate correction is required.

Art Unit: 3679

### Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 17-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 17 is directed simply to an "assembly". An "assembly" is too broad a term to be a definitive identification of an invention. There is no classification for such an invention.

## Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1. 13, 14, 16-25 & 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Schote, US 2002/0110299. The figure shows an assembly comprising:

a constant velocity universal joint with an outer joint part 4 in the form of a joint bell 4 with an attached connecting journal 5 and a radial supporting face at the joint bell at the base of the connecting journal;

a wheel hub 2 with bearings 3 which is slid on to the connecting journal and which, via threading is clamped to the outer joint part, wherein the wheel hub is directly or indirectly supported on the supporting face; and

Art Unit: 3679

an annular ring 8 made of plastic, which is positioned directly on the supporting face so as to be concentric relative to the connecting journal and which accommodates the clamping forces of the threading.

The figure shows the annular disc 8 comprises a cylindrical portion 8b which starts from an outer edge of the annular disc and is positioned on the joint bell 4 in a force locking way.

11. Claims 1, 13, 14, 16-25 & 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Booker et al, US 5,833,243. Figures 1, 2 & 8 show an assembly comprising:

a constant velocity universal joint 14, 84 with an outer joint part in the form of a joint bell 14, 84 with an attached connecting journal 18 and a radial supporting face at the joint bell at the base of the connecting journal;

a wheel hub 12, 82 with bearings which is slid on to the connecting journal and which, via threading is clamped to the outer joint part, wherein the wheel hub is directly or indirectly supported on the supporting face; and

an annular ring 92 made of plastic, which is positioned directly on the supporting face so as to be concentric relative to the connecting journal and which accommodates the clamping forces of the threading.

Figure 8 shows the annular disc 92 comprises a cylindrical portion 94 positioned on the joint bell 84 in a force locking way.

12. Claims 1, 13, 14, 16-25 & 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Hofmann et al, US 5,674,011. Figures 1 & 2 show an assembly comprising:

Application/Control Number: 10/562,430

Art Unit: 3679

a constant velocity universal joint with an outer joint part in the form of a joint bell 2 with an attached connecting journal and a radial supporting face at the joint bell at the base of the connecting journal;

Page 6

a wheel hub 9 with bearings 1 which is slid on to the connecting journal and which, via threading is clamped to the outer joint part, wherein the wheel hub is directly or indirectly supported on the supporting face; and

an annular ring 3 made of plastic (col. 1, line 59), which is positioned directly on the supporting face so as to be concentric relative to the connecting journal and which accommodates the clamping forces of the threading.

Figures 1 & 2 show the annular disc 3 comprises a cylindrical portion (nominally indicated by numeral 4) which starts from an outer edge of the annular disc and is positioned on the joint bell 2 in a force locking way.

13. Claims 1, 13, 14, 16-25 & 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Otto, US 4,010,986. The figure shows an assembly comprising:

a constant velocity universal joint with an outer joint part in the form of a joint bell 6 with an attached connecting journal 5 and a radial supporting face at the joint bell at the base of the connecting journal:

a wheel hub 10 with bearings 3 which is slid on to the connecting journal and which, via threading is clamped to the outer joint part, wherein the wheel hub is directly or indirectly supported on the supporting face; and

Art Unit: 3679

an annular ring 18 made of plastic (col. 31, line 3), which is positioned directly on the supporting face so as to be concentric relative to the connecting journal and which accommodates the clamping forces of the threading.

### Claim Rejections - 35 USC § 103

- 14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Yamamoto, US 2004/0022471 in view of Coleman US 2,713,504. In Figures 1-4, Yamamoto shows an assembly comprising: a constant velocity universal joint 3 with an outer joint part 14 in the form of a joint bell 14 with an attached connecting journal 18 and a radial supporting face 14b at the joint bell at the base of the connecting journal; a wheel hub 1 with bearings 8-10 which is slid on to the connecting journal and which, via threading is clamped to the outer joint part, wherein the wheel hub is directly or indirectly supported on the supporting face; and an annular ring 22, which is positioned directly on the supporting face so as to be concentric relative to the connecting journal and which accommodates the clamping forces of the threading. Yamamoto discloses the annular disc 18 is made from steel, but not from bronze, bronze coating or plastic.

Application/Control Number: 10/562,430

Art Unit: 3679

In col. 5, lines 3-28, Coleman teaches that an annular disc made from bronze, bronze coating or plastic is an art recognized equivalent of an annular disc made from steel. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assembly of Yamamoto by making the annular disc from bronze, bronze coating or plastic instead of steel since all such annular discs are art recognized equivalents as taught by Coleman.

16. Claims 1 & 13-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizukoshi, US 6,135,571 in view of Coleman. In Figures 8-13, Mizukoshi shows an assembly comprising: a constant velocity universal joint with an outer joint part 11 in the form of a joint bell 11 with an attached connecting journal 29 and a radial supporting face at the joint bell at the base of the connecting journal; a wheel hub 6a with bearings which is slid on to the connecting journal and which, via threading is clamped to the outer joint part, wherein the wheel hub is directly or indirectly supported on the supporting face; and an annular ring 69, which is positioned directly on the supporting face so as to be concentric relative to the connecting journal and which accommodates the clamping forces of the threading. Mizukoshi discloses in col. 3, line 61 that the annular ring is provided to prevent play between the joint bell and the wheel hub and in col. 29, line 10 that the annular disc 69 is made from steel, but not from bronze, bronze coating or plastic.

In col. 5, lines 3-28, Coleman teaches that an annular disc made from bronze, bronze coating or plastic is an art recognized equivalent of an annular disc made from steel. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the

Art Unit: 3679

assembly of Mizukoshi by making the annular disc from bronze, bronze coating or plastic instead of steel since all such annular discs are art recognized equivalents as taught by Coleman.

#### Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (571) 272-7077. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Greg Binda

Primary Examiner

Art Unit 3679